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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,452	06/22/2006	Ryuichi Oota	1018775-000986	4156
21839 7590 12/28/2007 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER MORRISON, THOMAS A	
			ART UNIT 3653	PAPER NUMBER
			NOTIFICATION DATE 12/28/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/584,452	OOTA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas A. Morrison	3653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/16/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fig. 4 of the instant application and page 2, line 23 to page 3, line 21 of the specification of the instant application in view of Japanese Publication No. 64-53948 (hereinafter "JP'948"). Fig. 4 of the instant application and page 2, line 23 to page 3, line 21 of the instant application are being treated as admitted prior art.

Regarding claim 1, Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose a sheet feeder (Fig. 4) having an upstream side and a downstream side, the sheet feeder comprising:

a suction carrier (2) that sucks an uppermost sheet of sheets piled up and carries the uppermost sheet from the upstream side to the downstream side in a carrying direction (i.e., from right to left in Fig. 4);

an oblique carrier (3) that carries a sheet, wherein the oblique carrier (3) is located downstream of the suction carrier (2), wherein the oblique carrier (3) carries the sheet slantingly toward a guide wall (31) in order to position an edge of the sheet along the guide wall (31) (see e.g., page 3 lines 7-10 of the instant application), and wherein the oblique carrier (3) carries the sheet downstream in the carrying direction; and

a handling member (4) for allowing only the uppermost sheet carried by the suction carrier (2) to pass the handling member (4),

wherein the sheet feeder (Fig. 4) separates sheets one by one from the sheets piled up on a sheet feeding table (11) and then carries the sheets. Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose all of the limitations of claim 1, except for a detector and a retracting mechanism, as claimed.

JP'948 discloses that it is well known to provide a sheet feeder (Figs. 1-2 and 8a-8c) with a handling member (including 120) for allowing only an uppermost sheet carried by a carrier (including 101) to pass the handling member (including 120); a detector (SE3 in Fig. 2) for detecting a front edge of the sheet which has passed the handling member (including 120) and has been put on another carrier (130), wherein

the detector (SE3) is located downstream of the handling member (including 120); and a retracting mechanism (i.e., whatever structure retracts element 120 in Figs. 8a-8c) for retracting the handling member (including 120) away from the sheet passing the handling member (including 120) while the detector (SE3) detects the sheet passing through. See e.g., English Abstract for an explanation of how detector SE3 detects the front edge of the sheet. Moreover, the English Abstract explains how the handling member (including 120) is retracted while the detector (SE3) detects the rear edge of the sheet (i.e., retracting the handling member while the detector detects the sheet passing through). In addition, the English Abstract explains that the arrangement shown in JP'948 surely prevents the double feeding of sheets of paper via detecting the sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Fig. 4 of the instant application with a detector for detecting a front edge of the sheet which has passed the handling member (4) of Fig. 4 of the instant application and has been put on another carrier (i.e., the oblique carrier of Fig. 4), wherein the detector is located downstream of the handling member (4) of Fig. 4; and a retracting mechanism for retracting the handling member (4) of Fig. 4 away from the sheet passing the handling member (4) of Fig. 4 while the detector detects the sheet passing through, for the purpose of surely preventing double feeding of sheets of paper, as taught by JP'948. Thus, this combination of references meets the limitations of claim 1 as now amended.

Regarding claim 2, Figs. 8a-8c and the English Abstract of JP'948 disclose that the retracting mechanism (i.e., whatever structure retracts the handling member in Figs.

8a-8c of JP'948) holds the handling member away from the sheet every time the sheet is detected by the detector (SE3).

Regarding claims 3 and 4, the English Abstract of JP'948 discloses that the retracting mechanism (i.e., whatever structure retracts the handling member in Figs. 8a-8c of JP'948) holds the handling member away from the sheet for the entire time that the detector (SE3) detects the sheet. More specifically, such retracting mechanism holds the handling member away from the sheet for the entire time that the detector (SE3) detects the rear edge of the sheet. This meets the limitations of claims 3 and 4 as now amended.

Regarding claim 5, Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose a sheet feeder (Fig. 4) having an upstream side and a downstream side, wherein the sheet feeder (Fig. 4) separates sheets one by one from sheets piled up on a sheet feeding table (11) and then carries the sheets, the sheet feeder (Fig. 4) comprising:

- a pickup carrier (2) that picks up an uppermost sheet of sheets piled up and carries the uppermost sheet from the upstream side to the downstream side in a carrying direction (i.e., from right to left in Fig. 4);

- an oblique carrier (3) that carries a sheet on the oblique carrier (3), wherein the oblique carrier (3) is located downstream of the pickup carrier (2), wherein the oblique carrier (3) carries the sheet slantingly toward a guide wall (31) in order to position an edge of the sheet along the guide wall (31) (see e.g., page 3 lines 7-10 of the instant

application), and wherein the oblique carrier (3) carries the sheet downstream in the carrying direction; and

a handling member (4) for allowing only the uppermost sheet carried by the pickup carrier (2) to pass the handling member (4). Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose all of the limitations of claim 5, except for a detector and a retracting mechanism, as claimed.

JP'948 discloses that it is well known to provide a sheet feeder (Figs. 1-2 and 8a-8c) with a handling member (including 120) for allowing only an uppermost sheet carried by a carrier (including 101) to pass the handling member (including 120); a detector (SE3 in Fig. 2) for detecting a presence (e.g., the front or rear edge) of a sheet which has passed the handling member (including 120) and has been put on another carrier (130), wherein the detector (SE3) is located downstream of the handling member (including 120); and a retracting mechanism (i.e., whatever structure retracts element 120 in Figs. 8a-8c) for holding the handling member (including 120) away from the sheet passing the handling member (including 120) while the detector (SE3) detects the presence (i.e., the rear edge) of the sheet when the sheet is being carried downstream. See e.g., English Abstract for an explanation of how the handling member (including 120) is held away from the sheet passing the handling member (including 120) while the detector (SE3) detects the presence (i.e., the rear edge) of the sheet when the sheet is being carried downstream. In addition, the English Abstract explains that the arrangement shown in JP'948 surely prevents the double feeding of sheets of paper via detecting the sheet. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to provide the apparatus of Fig. 4 of the instant application with a detector for detecting a presence of a sheet which has passed the handling member (4) of Fig. 4 of the instant application and has been put on another carrier (i.e., the oblique carrier (3) of Fig. 4), wherein the detector is located downstream of the handling member (4) of Fig. 4; and a retracting mechanism for holding the handling member (4) of Fig. 4 away from the sheet passing the handling member (4) of Fig. 4 while the detector detects the presence (e.g., the rear edge) of the sheet when the sheet is being carried downstream, for the purpose of surely preventing double feeding of sheets of paper, as taught by JP'948. Thus, this combination of references meets the limitations of claim 5 as now amended.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/17/2007

  
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